APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,089	07/18/2003	Shin-yi Hsu	H-350CD	9110

			EXAMINER
41245	7590	10/08/2004	CHAWAN, SHEELA C

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ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/623,089	HSU, SHIN-YI
	Examiner	Art Unit
	Sheela C Chawan	2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 July 2003</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>19-44</u> is/are pending in the application.

   4a) Of the above claim(s) <u>37-44</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>19-36</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>18 July 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date <u>7/18/03</u>.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

1.   Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 19- 36, are drawn to a method of generating a database of information used to identify an object in an image, by querying a computer system, classified in class 707, subclass 1-6.

II. Claims, 37 - 44 drawn to a method of generating a fraction plane in real time for recognizing objects in hyper spectral image cube that has plurality of spectral regions, classified in class 382, subclass 154.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as a method of identifying an object in an image by querying a computer system a lexicon of photo-interpreters and formulating object extraction rules, invention II has separate utility such recognizing objects in hyper spectral image cube that has plurality of spectral regions. See MPEP 806.05(d).

2.   Because these inventions are distinct for the reason given above and have acquired a separate status in the art as shown by their different classification and divergent subject matter, restriction for examination purposes as indicated is proper.

3.   A telephone call was made to Mr. Levey on 9/20/04 to request an oral election to

the above restriction requirement. Mr. Levey has elected claims 19-36 and has

accepted the restriction with traverse.

4.   Applicant is reminded that upon the cancellation of claims to a non-elected

invention, the inventor ship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventor ship must be accompanied by

a diligently-filed petition under 37 CRF 1.48(b) and by the fee required under 37 CRF

1.17(h).

DETAILED ACTION

Preliminary Amendment

1.   Preliminary amendment filed on 7/18/03 has been entered.

Drawings

2.   The drawings are objected to because of draftperson's remarks (see attached

PTO-948 paper date 9/30/04. A proposed drawing correction or corrected drawings are

required in reply to the Office action to avoid abandonment of the application. The

objection to the drawings will not be held in abeyance.

Specification

3.   The abstract of the disclosure is objected to because applicant is reminded of the

proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single

paragraph on a separate sheet within the range of 50 to 150 words. It is important that

the abstract not exceed 150 words in length since the space provided for the abstract

on the computer tape used by the printer is limited. The form and legal phraseology

often used in patent claims, such as "means" and "said," should be avoided. The

abstract should describe the disclosure sufficiently to assist readers in deciding whether

there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information

given in the title. It should avoid using phrases which can be implied, such as, "The

disclosure concerns," "The disclosure defined by this invention," "The disclosure

describes," etc.

Claim Rejections - 35 U.S.C. § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b),

by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a)

shall have the effects for purposes of this subsection of an application filed in the United States only if the

international application designated the United States and was published under Article 21(2) of such

treaty in the English language.

Claims 19-22, 24-26, 31-36 are rejected under 35 U.S.C. 102(e) as being

anticipated by Delanoy (US. 5,793,888).

As to claim 19, Delanoy discloses a method of generating a database (column 5, lines 1-6) of information used to identify an object in an image (column 5, lines 21- 56), by querying a computer system comprising a lexicon of photo- interpreters (photo interpreter corresponds to an agent, column 11, lines 51- 61, column 14, lines 35- 39), and formulating object extraction rules (column 4, lines 6-9), comprising executing a computer program comprising information supplied by at least one expert photo analyst, and information input by a user(column 4, line through column 5, line 56, column 6, line 54 through column 7, line 10, column 13 line 65 through column 14, line 21).

As to claim 20, Delanoy discloses the method of generating a database wherein said computer program further comprises extraction rule sets (column 3, lines 20- 24, column 5, lines 1-20).

As to claim 21, Delanoy discloses the method of generating a database wherein said information input by said user comprises one from the group of images, scenes, Maps and computer text (column 6, line 54 through column 7, line 29).

As to claim 22, Delanoy discloses the method of generating a database wherein the computer programming language (column 11, lines 51- 61, column 14, lines 35- 39, abstract) is pseudo-English (pseudo –human language correspond to vocabulary for description of object to be identify for example rules for retrieving images from multiplicity of images etc, column 4, lines 1- 13, column 6, line 49 through column 7, line 29).

As to claim 24, Delanoy discloses a method of training a user to become an expert in performing a task in a predetermined subject (column 5, lines 39- 56, column 6, lines 13-16, 49 through column 7, line 10), by querying a computer system comprising a lexicon of words (column 1, lines 51-54) and phrases, and formulating rules dependent on said predetermined subject (column 4, lines 1-13, column 10, lines 14- 42), the steps comprising:

providing a programming language comprising information supplied by at least one expert (column 5, lines 39- 56), said programming language comprising a predetermined vocabulary for facilitating descriptions of aspects of said subject (column 8, lines 31- 50, column 10, lines 14- 42); and

outputting results based on the queries of said user to aid in helping the user perform a task associated with said subject (column 5, lines 38- 55, column 6, line 54 through column 7, line 11).

As to claim 25, Delanoy discloses the method of training a user to become an expert (column 5, lines 21- 64) comprising:

directing the computer system to generate descriptive words, phrases and rules for defining said feature of interest (column 5, lines 21-64, column 10, lines 13- 42, column 11, lines 51-61).

As to claim 26, Delanoy discloses the method of training a user to become an expert in performing a task in a predetermined subject the steps further comprising:

marking a feature of interest of said presented results (column 11, line 51 through column 12, lines 1- 32).

As to claim 31, Delanoy discloses the method of training a user to become an expert in performing a task in a predetermined subject wherein said feature of interest of said presented results comprise a step of a process (column 6, lines 17-29, column 6, line 49 through 45, column 11, lines 26-51, column 10, lines 19-25).

As to claim 32, Delanoy discloses the method of training a user to become an expert in performing a task in a predetermined subject wherein said feature of interest of said presented results comprise an object of an image or scene (column 6, lines 17-29, column 6, line 49 through 45, column 11, lines 26-51, column 10, lines 19-25).

As to claim 33, Delanoy discloses the method of training a user to become an expert in performing a task in a predetermined subject, wherein said programming language comprises an editor (column 5, lines 1-6, column 13, lines 9-28).

As per claim 34, Delanoy discloses the method of training a user to become an expert in performing a task in a predetermined subject, wherein said editor is an expert editor (column 5, lines 1-64).

As to claim 35, Delanoy discloses the method of training a user to become an expert in performing a task in a predetermined subject wherein said programming language comprises an expert system (column 5, lines 1-56).

As to claim 36, Delanoy discloses the method of training a user to become an expert in performing a task in a predetermined subject wherein said programming language is a pseudo-human language (pseudo –human language correspond to vocabulary for description of object to be identify for example rules for retrieving images

from multiplicity of images etc, column 4, lines 1- 13, column 6, line 49 through column

7, line 5).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
>
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
>
> the prior art are such that the subject matter as a whole would have been obvious at the time the
>
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
>
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 23, 27- 29 are rejected under 35 U.S.C. 103(a) as being unpatentable

over by Delanoy (US. 5,793,888), as applied to claims 19-22, 24-26 and 31-36, above

and further in view of Maples et al., (US.5,914,720).

Regarding claim 23, Delanoy discloses machine learning apparatus and method

for image searching. Delanoy is silent about specific details of marking an object on a

display.

Maples disclose method of using multiple perceptual channels to increase user

absorption of an n-dimensional presentation environment. The system comprises of:

generating a database the steps further comprising marking an object on a

display (column 18, lines 50- 52, column 21, lines 42- 47, column 23, lines 1- 37).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify Delanoy to include marking an object on a display. It

would have been obvious to one of ordinary skill in the art at the time of the invention to

have modify by the teaching of Maples in order to provide a set of user perceptual visual clues because this will enhance a user's ability to perceive distance and relative movement within a synthetic environment (as suggested by Maples at column 3, lines 54- 57).

As to claim 27, Maples discloses the method of training a user to become an expert in performing a task in a predetermined subject wherein said step of outputting

said results comprise displaying graphical results (column 18, lines 50- 52, column 21, lines 42- 47, column 23, lines 1- 37).

As to claim 28, Maples discloses the method of training a user to become an expert in performing a task in a predetermined subject wherein said step of outputting said results comprise generating audible signals (column 5, lines 43-56, column 6, lines 26-37, column 27, lines 21-46, column 27, line 65 through column 28, line 5).

As to claim 29, Maples discloses the method of training a user to become an expert in performing a task in a predetermined subject wherein said step of outputting said results comprise generating tactile results (column 5, lines 43-56, column 6, lines 26-37, column 27, lines 21-46, column 27, line 65 through column 28, line 5).

5.   Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Delanoy (US. 5,793,888), as applied to the claims 19 -22, 24-26 and 31-36, above and further in view of Rice (US.5,234,346).

Regarding claim 30 Delanoy discloses machine learning apparatus and method for image searching. Delanoy is silent about specifics details of outputting results of generating odors.

Rice discloses an educational and training simulator system having simultaneous

control of audio, video, and special effects generators. The present invention uses

special effects techniques for light, sound, smell, vibration, and optics to produce

simulated "virtual reality" for a large group of viewers at the same time. The system

comprises of:

the method of training a user to become an expert in performing a task in a

predetermined subject wherein said step of outputting said results comprises generating

odors (column 1, lines 6- 14, column 2, lines 33 – 49).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have modified Delanoy to include step of outputting said results

comprises generating odors. It would have been obvious to one of ordinary skill in the

art at the time of the invention to have modified by the teaching of Rice in order to

provide a realistic experience for educational and training use in the classroom thereby

improving individual retention and learning (as suggested by Rice at column 1, lines 34-

37).

Other prior art cited

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anand et al., (US. 5,710,900) discloses system and method for generating reports from a computer database.

Rubin (US.5,778,378) discloses object oriented information retrieval framework mechanism.

Stuckey (US.5,721,938) discloses method and device for parsing and analyzing natural language sentence and text.

Barber et al., (US.5,751,286) discloses image query system and method.

Cook et al., (US.6,201,948 B1) discloses   agent based instruction system and method.

Contact Information

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sheela C Chawan whose telephone number is 703-

305- 4876. The examiner can normally be reached on Monday - Thursday 8 - 6.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan
Patent Examiner
Group Art Unit 2625
September 29, 2004